

COUNTRY : USSR

50X1-HUM

SUBJECT : MILITARY THOUGHT : "Aviation
Operations in an Initial Front Offensive
Operation", by Lieutenant-General of
Aviation N. Ostroumov and Major-General
of Aviation M. Kozhevnikov

50X1-HUM

Aviation Operations in an Initial Front Offensive Operation
by

Lieutenant-General of Aviation N. Ostroumov

and

Major-General of Aviation M. Kozhevnikov

The equipping of ground troops with nuclear/missile weapons and the widespread introduction of armored equipment and means of mechanization into their composition sharply increase the combat capabilities of combined-arms formations. This creates favorable conditions for carrying out offensive operations at high speeds, to a great depth, and with more decisive goals than was possible in the recent past. Nevertheless, as shown by the experience of many exercises of ground troops and air forces, success in operations can only be achieved by the joint efforts of all types of armed forces and arms of troops. Even under the new conditions, ground troops have need for cover and air support and for reliable reconnaissance data about the enemy, his activities and intentions; and also for landing troops in the enemy rear and for airlifting them. Moreover, the role of aviation in support of the combat actions of ground troops in front operations is increasing all the time in connection with the increasing tempo of the offensive, the great dynamism of battle, and the sharply increasing mobility of the means of armed combat used by both sides.

When conducting initial front offensive operations, 50X1-HUM the close coordination between the ground troops and aviation assumes particular significance. In this case, aviation is widely used to destroy all the enemy nuclear/missile means and especially his mobile (maneuvering) objectives, to cover advancing troops from the air, and to conduct aerial reconnaissance with the goal of discovering enemy groupings and locating his means of nuclear attack.

The increased combat capabilities of modern front aviation permit these very important missions to be fulfilled with great effectiveness.

Modern supersonic fighter-bombers, possessing great ranges of speed and altitude, and capable of delivering powerful strikes against targets with missiles and nuclear bombs, may be used successfully to combat enemy nuclear/missile air groupings and reserves, and also his radio-technical means. A typical characteristic of the operations of fighter-bombers of the latest design is the ability to carry out a search for assigned targets and to destroy them quickly. This very mission is fulfilled by modern supersonic front bombers both in the tactical and, especially, in the operational depth. Using bombs and missiles with nuclear charges, they are capable of delivering powerful strikes during the day and night against important enemy objectives in difficult meteorological conditions.

An increase in the striking force of front aviation is effected by supplying it with the air army's front cruise missiles, used to destroy important enemy objectives at a considerable depth with nuclear weapons.

The role of front fighter aviation is increasing even more with the delivery of the newest types of supersonic fighters armed with "air-to-air" missiles. In essence, these aircraft represent flying antiaircraft guided missile (ZUR) batteries capable of executing a deep maneuver into enemy dispositions and destroying enemy missile delivery aircraft before they release "air-to-surface" missiles.

The technical equipping of aircraft and ZUR guidance means (sredstvo upravleniya) with reliable identification devices (pribor opoznovaniya) will permit the antiaircraft missile troops and fighter aviation to carry out close coordination not only in various areas but also in a single area.

50X1-HUM

Transport aviation, being equipped with AN-12 and AN-8 turboprop aircraft with large cargo capacities, and with

50X1-HUM

MI-4 and MI-6 helicopters, ensures the dropping of operational and tactical landing troops during the conduct of a front operation.

In this way, the qualitative changes in front aviation increase its significance in modern front operations and permit the achievement of very significant operational results during combat operations.

Proceeding from the combat capabilities of front aviation, we shall also examine its operations in an initial front troop offensive operation. 50X1-HUM

Evidently, an initial front offensive operation will always begin right after powerful nuclear strikes by missiles and aviation in the entire theater of military operations.

Therefore, even before it begins carrying out its missions of supporting and protecting front troop offensive operations, the air army is confronted with three interrelated combat missions: to repulse enemy air attacks, jointly with the forces and means of PVO troops; simultaneously with this, to participate in the initial nuclear/missile strike against the enemy; and to carry out aerial and combat reconnaissance of the most important enemy objectives.

The effectiveness in the fulfillment of these missions by the air army of the front will depend, to a considerable degree, on the combat readiness of aviation large units, units and subunits.

High combat readiness of aviation is determined by providing its units with aircraft and with flight and technical personnel; by maintaining the training and physical fitness of personnel; by organizing constant duty for fighter-interceptors, delivery aircraft and cruise missiles; and also by a series of other factors. The degree of combat readiness of units and large units of front aviation in many ways depends on the timeliness of their dispersal to reserve airfields and the firm work of command posts. The fact of the matter is that the prolonged basing of units of front aviation during

50X1-HUM

50X1-HUM

peacetime on permanent airfields affords the enemy the opportunity to disclose our aviation grouping through a series of indicators, and to carry out all the necessary calculations for delivering the first strike against it in advance. The timely dispersal of aviation deprives the enemy of this opportunity, and, at the same time, ensures that all or the greater part of the air army forces will have freedom of operation and time to become airborne in order to repel the attack of the air enemy and to deliver a powerful first strike against him.

Meanwhile, the experience of exercises shows that serious errors are permitted in this matter. In a series of cases, for the purpose of dispersal, aviation units and sub-units are withdrawn to rear area airfields which do not have sufficient means for the materiel-technical support of aviation and which are located at a distance from the front line in excess of the combat operating range of the aircraft based on them. As a result of this, part of aviation is doomed to passivity during the most crucial moment of the initial period of war. It loses the opportunity to meet the air enemy on the approaches to the front troops and objectives which are being covered, and is not able to deliver strikes at a great depth. Cases frequently occur in which fighter-interceptors designated for immediate take-off and attack of the detected air enemy are transferred for the purpose of dispersal from well-prepared airfields with surfaced runways to poorly equipped dirt airfields. The experience of exercises and theoretical research shows that fighter-interceptors should be shifted from permanent to dirt airfields only when they have fulfilled their missions of repelling the first enemy air raid. In this way, the first take-off of fighter-interceptors must be carried out from permanent airfields, especially if they have supplementary dirt runways.

It is very important that all dirt airfields be in a high state of combat readiness even in peacetime. This is the primary mission of staffs which should maintain constant control over the degree of readiness of airfields, and, in case some of them are put out of commission, should carry out the immediate designation of another reserve airfield

50X1-HUM

[REDACTED]

for this or that unit. It is also necessary to have materiel-technical means, communications and radiophoto equipment (radiosvetotekhnika) at the reserve airfields.

The deployed and constantly operating aviation command posts of air armies and fighter divisions, connected with communications channels into a single system with radio-technical means of detection, ensure that units will be brought to increased combat readiness quickly and that the forces on duty will take off immediately to intercept winged means of enemy reconnaissance or enemy attack that have suddenly penetrated our air space.

The constant readiness of aviation command posts and their swift reaction to all changes in the air situation, to a certain degree, deprive the enemy of the opportunity of carrying out a surprise air attack. Therefore, in peacetime, it is very important that command posts carry on a constant study of the air and ground situation on contiguous territories. It is also advisable to use the organic radars designated to provide combat training for aviation units, and also the radars of the PVO troops to study the flights of all types of aircraft on the territories of capitalist countries. This may disclose a series of major elements in the combat readiness of aviation in contiguous countries for a likely attack. It is also urgently necessary to organize the monitoring of the operation of radio-technical means on contiguous territory. From the nature of their work and maneuver, it is possible to disclose some intentions of the probable enemy and to make timely use of radiojamming equipment to disrupt precision bombing in case of a sudden attack.

The timely and effective repulsion of an enemy air attack by the forces of fighter aviation of the air army and by guided antiaircraft missiles of the front, and also the simultaneous joint delivery of a powerful nuclear strike against the enemy, are, in essence, the basis of the work of the command and staffs at all levels during the period when the first offensive operations are being carried out.

50X1-HUM

In our opinion, to repel a surprise attack and to deliver the first strike, the operational structure of an air army must include several echelons.

The composition of the first echelon can include part of the forces of fighter aviation, and groups for: air situation reconnaissance, combat reconnaissance of strike objectives, setting up active jamming, and the neutralization and destruction of radar stations and the nearest missile and aviation control points. The basic purpose of this echelon is the repulsion of raids by aircraft and cruise missiles of the enemy, the destruction and neutralization of the radiotechnical means of the system of control and guidance of aviation and missiles, and reconnaissance of objectives planned to be destroyed in the first strike.

The second echelon comprises the basic forces of fighter aviation designated to repulse massed enemy raids (up to 50 to 60 percent of all the forces of fighter aviation (IA)), and groups of fighter-bombers to deliver strikes against assigned objectives.

The third echelon comprises the forces of bomber (missile-carrying) aviation, front cruise missiles and a group for the reconnaissance of the results of a nuclear/missile strike.

All the basic principles that ensure the constant readiness of an air army to repel a surprise enemy air attack and to carry out a powerful first strike against him are taken into consideration in the operational organization which we have presented. However, such an operational organization of an air army should not be stereotyped and used in all cases. It may be changed depending on the specific conditions of the situation.

The division of the forces of an air army into echelons is a quite conditional but necessary measure for disrupting a surprise enemy attack and ensuring constant readiness of an air army (VA). In reality, what would happen if all the forces of an air army took off at the same time to meet the

50X1-HUM

first echelon of an air enemy and then landed on the airfields? Evidently, the air army would lose its high combat readiness for a fairly long period of time, and the enemy might take advantage of this to deliver a strike with his main forces. To prevent this from happening, it is advisable first to send up the first echelon of the VA forces, while the remaining part of the forces (2nd and 3rd echelons) must be in full readiness to take off. As soon as word is received that the main enemy forces have taken off and that the missiles have been launched, the second and third echelons take off simultaneously to increase the repelling force. In this case, even if the enemy succeeds in delivering missile strikes against our airfields, our aviation will no longer be on them.

After fulfilling the above-indicated missions, the air army of the front must quickly switch over its efforts to joint operations with the troops of the front in the initial offensive operation.

The changed nature of conducting modern front operations has influenced the methods for fulfilling the basic missions of the VA for cover and air support of front troops, in coordination with the operational-tactical missiles, and the forces and means of PVO troops. The methods for fulfilling aerial reconnaissance missions and for carrying out troop landings in the enemy rear have also changed:

The cover of troops and rear area objectives of the front, in connection with the enemy use of nuclear/missile weapons, is assuming constantly increasing significance.

Under the new conditions, the contents of the operational decision of the front troop commander, commanders of armies, and the commanding officers of combined-arms and tank large units will, in many ways, be determined by the capabilities of covering troops and objectives of the front rear area from the air, because the most powerful strikes against troop groupings, missile launch sites, airfields, command posts, communication centers, transshipment bases and other objectives will be delivered by the enemy from the air.

It is possible to state confidently that if we do not ensure reliable air cover of troops and rear area objectives, the combined-arms and tank operational formations will not be able to fulfil the missions assigned to them in a front offensive operation.

It is known that the front PVO means are the antiaircraft guided missile large units and the fighter aviation of the air army. Modern fighters, having great maneuverability and speed, are able to intercept enemy air targets at distant approaches to the troops and rear area objectives being covered, and to destroy these targets with guided weapons in the first attack. The need to intercept and destroy delivery aircraft of enemy nuclear weapons at distant approaches is dictated by two very important circumstances: first, the striving by the probable enemy to make broader use of missiles of the "air-to-surface" class, which can be released from delivery-aircraft far beyond the range of front ZURs; secondly, the striving of interceptor aircraft not to knock down the air target over friendly troops under any circumstances, but to knock it down on the approaches to them. This will help the troops being covered from suffering losses as a result of a nuclear weapon burst after the downed delivery aircraft falls.

Taking into consideration the combat capabilities of modern aviation, we cannot agree with the opinions of Colonel P. Lozik¹, who considers that its significance has decreased somewhat of late. It seems to us that the role of front fighter aviation under the new conditions has not decreased, but, just the opposite, has increased. The underestimation of this situation is fraught with serious consequences for front troops. It is also impossible to consider as correct Colonel P. Lozik's statement that supposedly division control centers for fighter aviation have lost their significance, and that in connection with this it is necessary to create only regimental control

50X1-HUM

1. Collection of Articles of the Journal "Military Thought"
No. 4 (59)/1961/.

[REDACTED]

and direction points; and supposedly the fighter regiment must cover one combined-arms or tank army and operate only in its offensive zone.

It seems to us that Colonel P. Lozik's proposal does not facilitate adaptation of the new forms of combat employment of fighters to the new combat equipment. How can one speak of attaching each fighter regiment to one army, when the flight speed and the turning radii of modern supersonic fighters are several times greater than that of MIG-15 and MIG-17 jet aircraft, and when the diameter of a horizontal turn of supersonic fighters exceeds the size of the zone of the advancing combined-arms army. For this reason alone fighters will not be able to carry out a maneuver in the comparatively narrow zone of the army offensive; they will simply lose their remarkable characteristic of carrying out a broad maneuver. For the successful repulsion of a raid by enemy winged means of attack, especially firm centralization of the control of all forces and means of protection is needed. We agree that this is achieved by combining the antiaircraft guided missile units and large units and fighter aviation under one command. But in doing this, there is no need to create formations in the front like a PVO army, as proposed by Colonel P. Lozik; it is adequate to effect the operational subordination of the antiaircraft guided missile units and large units (attached to the front) to the commander of the air army, who already has such a PVO weapon as the fighter aircraft at his disposal. This will permit the combining of all front PVO means in the hands of one person, namely where the means of air and long-range radiotechnical reconnaissance are also located. 50X1-HUM

In this case, the commander of the front VA will carry out the role of deputy commander of the front for PVO. The chief of the PVO will apparently perform the same duties as the chiefs of other arms of troops in the front command.

In an initial front offensive operation, fighter

[REDACTED]

50X1-HUM

aviation carries out its combat operations for covering troops and rear area objectives in close and constant coordination with the front antiaircraft guided missiles. In our opinion, the basis of this coordination must be the delineation of zones of area and altitude, and also the clear-cut distribution of objectives to be destroyed in one zone. 50X1-HUM

For combatting the winged means of enemy attack, it seems advisable to assign to fighter aviation a zone of combat operations in front of the zone of the effective range of fire of the ZUR.

→ SAMs

In their zone of combat operations, fighters will usually operate in pairs from a condition of duty in the air, using the data of ground radiotechnical detection means and the method of free search and destruction of air targets.

When possible, duty zones in the air must be marked out in front of the objectives being covered, on the axes of the probable flight of the enemy means of air attack. The greater the height at which the duty of fighters is established, the greater the distance that the zone of fighter duty in the air must be from the troops or other objectives being covered.

Point cover (punktovoye prikrytiye) of troops and objectives of the front rear area, i.e., air alert patrol missions (barrazhirovaniye) directly above the objective, is unthinkable for modern fighters. They can successfully fulfil their assigned mission of cover only by intercepting and destroying air targets on the distant approaches. Therefore, the conclusion suggests itself that it is necessary to cover troops and objectives of the front rear area in a centralized manner, and not by allotting fighter units and subunits of fighter aviation to the combined-arms and tank formations or large units.

If an air army has two fighter divisions, it is advisable to designate zones of combat operations for

50X1-HUM

50X1-HUM

each of them and to give the division commanding officers the right to use up to 2/3 of the fighter forces when covering troops and rear area objectives of the front.

During operations of the tank army in the first echelon of front troops, especially in those cases when it has to conduct an offensive at a great distance from the rest of the troops, it is recommended that fighter aviation be specially allotted to cover the tank army. The most probable methods of fighter operations when covering a tank army are the interception and destruction of air targets from a condition of duty in the air and free search.

Air support of troops is one of the most important missions of front aviation. It begins at the moment the troops go over to the offensive and continues until they fulfil their assigned combat missions. The basic goal of air support of front troops in the new conditions is the constant search for the nuclear/missile means of the enemy, and for the delivery vehicles of these means and their immediate destruction in the entire depth of the front troop offensive within the range of fighter-bombers, bombers, and front cruise missiles of the air army. The air army will use these means to keep track continuously of the movement of all enemy reserves in the front zone of operation and in the adjacent areas of neighboring fronts, and to deliver powerful strikes against them.

50X1-HUM

Air support during a front troop offensive will be carried out mainly by fighter-bomber aviation which is able to search out and immediately destroy mobile targets from low altitudes. This is especially important when combatting nuclear/missile means, which must be destroyed immediately upon detection.

In order to ensure better coordination of fighter-bombers with the operations of front missile units it is advisable to define zones of responsibility or areas of search and destruction of nuclear/missile weapons to the fighter-bomber units. The number and sizes of such

zones or areas depend on the situation that has developed and on the conditions of fighter-bomber basing. 50X1-HUM

In a series of cases to deliver strikes against nuclear/missile means and delivery vehicles as soon as they are located on the ground, successful use can be made of modern fighters equipped with appropriate armament, e.g., with pods of guided missiles and free rockets.

Combat with reserves is an integral part of air support by front aviation. The increased maneuver capabilities of troops requires continuous observation of the enemy from the air, and his destruction as soon as he is discovered. In combat with enemy reserves, an important role belongs to front bomber aviation, which, by using combat reconnaissance data, can destroy moving troops on distant approaches.

To support combined-arms and tank armies during maneuvering operations, it is most advisable to have a definite number of fighter-bomber flights on the days of the operation. This ensures the quick shifting of fighter-bombers to the support of this or that formation or large unit. If a front air army has one fighter-bomber division which is based on five or six airfields, there can be five or six fighter-bomber groups in constant readiness for take-off, this will fully ensure the fulfilment of missions that come up before the combined-arms and tank formations and large units.

Besides the fighter-bombers, missiles of all designations will also be used to deliver nuclear weapons. Therefore, in the new conditions, the coordination in time and place, both on the ground and in the air, between these means and the advancing operational formations and large units of front troops, must be the main concern of the command and of the staffs at all levels. The coordination of the time and the type of burst of nuclear warheads delivered by missiles and by front aviation assumes special significance.

50X1-HUM

On the whole, coordination between aviation, combined-arms (tank) formations and large units is achieved by the fulfilment of a series of conditions which must include the correct evaluation of friendly forces and the combat capabilities of each of their means which uses nuclear weapons; the timely assignment of missions to troops, aviation and missiles; the setting up of a constant exchange of information between the command and the staffs of the coordinating operational formations and large units concerning the situation and the missions of the troops, aviation, and missile units and large units; and the constant contact among commanding officers and staffs of the coordinating formations and large units by having control points which are situated jointly or near one another.

In our opinion, coordination between aviation and front troops must be organized over the entire depth of the front offensive operation. First of all, special attention should be given to the coordination of combat operations during the fulfilment of the immediate mission of the front troops during the first two days of the offensive. On the day before and during each day of the operation, questions regarding the coordination of aviation with troops must be refined in accordance with the situation that is actually developing.

Aerial reconnaissance under the new conditions of conducting combat operations, and especially in operations of the initial period of war have assumed exceptionally great significance.

In an initial offensive operation of front troops, aerial reconnaissance has two interrelated missions. The first and main one is the disclosure of missile and nuclear means of enemy attack in order to ensure an immediate attack against them with missile aviation and artillery forces. The second mission is the constant observation of the activities of all enemy forces and means.

50X1-HUM

In fulfilling the first mission, reconnaissance crews must be able to seek out the location of enemy missiles and nuclear means; by using a series of characteristic indicators, with the aid of special equipment, they must be able to determine the exact coordinates of the objective being reconnoitered and to transmit all the necessary intelligence data by radio to the command posts.

The second mission, the observation of enemy actions from the air, is carried out by crews of reconnaissance aircraft, fighter-bombers and bombers periodically on a broad front during the delivery of strikes against the enemy.

50X1-HUM

Lately, new characteristic features for conducting aerial reconnaissance have become evident. First, the increased requirements for conducting it continuously and the striving for constant observation of enemy missiles and nuclear means from the air in the zone of the front troop operation compels reconnaissance aircraft to operate not only at high, but also at low, altitudes that permit flight safety and visual observation of the objectives being reconnoitered.

Secondly, because of the increased capabilities of PVO means, it is becoming increasingly more difficult for reconnaissance aircraft to penetrate into the depth of the enemy disposition. Therefore, they find it increasingly necessary to attach themselves to combat formations of fighter-bombers and of bombers and fighters and to proceed in their combat formations to definite points. Besides, under modern conditions the crews of reconnaissance aircraft must possess great skill in the use of broad maneuvers at the altitude and in the direction of the flight.

Thirdly, the crews of reconnaissance aircraft cannot transmit reconnaissance data over the radio continuously now, as it was possible to do during the past war. They are required to give short transmissions

50X1-HUM

50X1-HUM

[REDACTED]

by radio signals. Otherwise, the enemy will fix the location of the reconnaissance aircraft in flight and will quickly intercept and destroy it with his high-speed fighters. [REDACTED]

These new conditions for conducting aerial reconnaissance require more thorough preparation and detailed elaboration of each reconnaissance flight, and especially of the time for transmitting data about disclosed objectives. In a number of cases it may be more advisable for the crew of the reconnaissance aircraft to start the transmission of reconnaissance data only after crossing the front line. The transmission of important information -- about detected missile launch sites, atomic artillery, or a large concentration of tanks -- should be transmitted immediately but by short radio signals.

It seems to us that control of large units, units, subunits and of single crews of front aviation aircraft in an initial front offensive operation should be strictly centralized in the hands of the air army commander. This creates conditions for transferring the efforts of fighter-bomber and bomber aviation at any time to destroy those mobile objectives of the enemy that present the greatest threat to the troops at a given time, irrespective of which combined-arms army large unit boundaries of operation these objectives are detected in. Besides, this firmer centralization of control is necessary in connection with the use of nuclear weapons by all arms of troops.

Continuity and flexibility of control, which are achieved by the creation of a sufficient number of permanently operating aviation control points, assume special significance for front aviation.

During combat operations, a front air army and its fighter-bomber and fighter large units should have forward control points deployed within them, in addition to the permanent basic command posts. This will help

50X1-HUM

to effect the close coordination between fighter bombers and the troops being supported and between the fighters and the means of PVO troops. It will also help to effect better control over the groups of aircraft in the air while they are carrying out their missions of supporting and covering troops, especially when directing these aircraft to ground and air targets.

Proceeding from the new requirements for using aviation in front operations, it seems advisable to us to have the following control points in an air army system of control: command post, forward command post, rear area control point, and command groups.

It is best to locate the above-listed air army control points in the disposition areas of similar control points of the front; and the operational groups of the air army should be used, first of all, in the tank army and in the combined-arms army operating on the main axis.

The basic functions of the operational groups of an air army is to support continuous coordination with the armies of the front, mainly on questions of coordinating the use of nuclear weapons, the use of fighters in coordination with antiaircraft guided missiles in one zone, and the overcoming of zones of radioactive contamination.

In our opinion, it is necessary that air large units and separate engineer regiments have command posts located in areas of airfield basing centers (aerodromyy uzel bazirovaniya); and the forward command posts of an air division of fighter-bombers and of fighter divisions should be located together with the forward command posts (PKP) of the tank or combined-arms armies.

50X1-HUM

If one tank and two combined-arms armies are in the composition of the first echelon of the front and one fighter-bomber division and two fighter divisions are in the composition of the air army, it is advisable for the PKP to comprise:

50X1-HUM

--in a tank army - an operational group of the VA and a PKP of a fighter or fighter-bomber division;

--in combined-arms armies - a PKP of a fighter division with missions of controlling fighter-bombers.

With such : broad deployment of front aviation control points, uninterrupted and flexible control is ensured, and also the close coordination of aviation with the front in an initial offensive operation.

The coordination of aviation with large units and units of operational-tactical missiles is carried out in the armies through operational groups of the VA and the PKP of the air division. In this case, the distribution of targets between missiles and aviation, and also the determination of reconnaissance tasks on behalf of missiles is carried out by the staff of the army on the order of the army troop commander. Correspondingly, the coordination of front missile large units with large units of the air army is carried out by the front troop commander through the front staff. When organizing such coordination, it is very important to ensure the timely receipt of reconnaissance data about the targets against which it is intended to deliver nuclear/missile strikes. In practice this is decided by the operational groups of the VA or by the forward control points of the air large units by assigning missions to reconnaissance crews and receiving the necessary data directly from the aircraft.

The solution of this question is one of the most important missions of a VA operational group or of the forward control point of an air large unit, when carrying out coordination with missile units and large units of operational-tactical designation.

Such, in our opinion, are the basic conditions regarding the support of combat operations by aviation in an initial front offensive operation.

50X1-HUM